Section 11.1

1) This example will help you do exercises 1-4 on p. 514.
For the data below:
   a) group the data using 50-59 as the first interval
   b) prepare a frequency distribution with columns for intervals and frequencies
   c) construct a histogram

<table>
<thead>
<tr>
<th>Interval</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>71</td>
</tr>
<tr>
<td>70</td>
<td>83</td>
</tr>
<tr>
<td>93</td>
<td>57</td>
</tr>
<tr>
<td>58</td>
<td>65</td>
</tr>
</tbody>
</table>

2) This example will help you do exercises 7-12, 17-28, 41-43 on p. 514-5.
Find the mean, median, and mode of:
   a) 3, 7, 5, 4, 3, 2, 7, 1, 3, 0, 6
   b) 1, 2, 3, 4
   c) 1, 2, 3, 4000

3) This example will help you do exercises 23-28 on p. 515.
Find the mode of 1, 1, 2, 3, 4, 5, 5

4) This example will help you do exercises 13-16 on p. 514.
Find the mean:

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
</tr>
</tbody>
</table>

Section 11.2

1) This example will help you do exercises 3-10 on p. 522.
Find the range of each set:
   a) 13, 38, -2, 14, 58, 7, 14
   b) 1, 48, 49, 50, 51, 52, 100
   c) 1, 15, 30, 45, 60, 80, 100

2) This example will help you do exercises 24-29 on pp. 522-3
The number of Americans (in millions) with taxable earnings in 1985-1992 is given. (Source: Statistical Abstract of the United States, 1994)

<table>
<thead>
<tr>
<th>Year</th>
<th>Workers w/ taxable earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>120</td>
</tr>
<tr>
<td>1986</td>
<td>123</td>
</tr>
<tr>
<td>1987</td>
<td>126</td>
</tr>
<tr>
<td>1988</td>
<td>130</td>
</tr>
<tr>
<td>1989</td>
<td>132</td>
</tr>
<tr>
<td>1990</td>
<td>133</td>
</tr>
<tr>
<td>1991</td>
<td>132</td>
</tr>
<tr>
<td>1992</td>
<td>132</td>
</tr>
</tbody>
</table>

   a) Find the mean number (in millions) of workers with taxable earnings in this period. Which year(s) is closest to this mean?
   b) Find the standard deviation for the data.
   c) In how many of these years is the number of workers with taxable earnings within 1 standard deviation of the mean?
   d) How many standard deviations from the mean is the largest number of workers with taxable earnings?
3) By observation, estimate the standard deviation:
   a) 5, 5, 5, 5, 5
   b) 4, 4, 4, 6, 6, 6